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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,146	07/28/2003	Xulin Sun	Serie 6020	4357

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EXAMINER

SAVAGE, MATTHEW O

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,146

Applicant(s)

SUN ET AL.

Examiner

Matthew O Savage

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-28 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 17-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-11 and 13-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1724

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, drawn to a waste liquid treatment apparatus, classified in class 210, subclass 172.
- II. Claims 17-28, drawn to a waste treatment method for hemodialyzers, classified in class 210, subclass 646.

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus could be used to carry out another and materially different process, for example, in a process for disinfecting water used in a surgical or dental procedure.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

In addition, this application discloses two patently distinct species including:

Species 1 shown in FIG. 1; and

Species 2 including a bacteriostatic treatment tank having an ultraviolet lamp not shown in any of the drawing Figures.

This application contains claims directed to the following patentably distinct species of the claimed invention:

Claims 12 and 21 correspond to species 2;

Claims 13, 14, 22, and 23 correspond to species 1.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-11, 15-20, and 24-28 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

Art Unit: 1724

the prior art, the evidence or admission may be used in a rejection under 35

U.S.C. 103(a) of the other invention.

During a telephone conversation with Ms. Linda K. Russell on 12-30-04 a provisional election was made with traverse to prosecute the invention of group I and species 1, claims 8-11, and 13-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12, and 17-28 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The concept of the U.V. light causing bubbles to form on the liquid surface is considered new matter. Applicant should note that the instant specification teaches that the U.V. light controls the formation of bubbles as

Art Unit: 1724

opposed to causing formation of the bubbles (see lines 3-17 of page 6 of the instant specification).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On lines 3-4 of claim 13, "the rear stage" lacks antecedence. On line 8, "the ultraviolet light" lacks antecedence.

On line 4 of claim 15, "the front stage" lacks antecedence.

On line 1 of claim 16, "The method" and "the water source" lack antecedence.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/41202 to Watanabe et al.

Art Unit: 1724

With respect to claim 8, Watanabe et al disclose a transport pipe 18 (see FIG. 2), a treatment tank 16, and an ozone water injection nozzle 27 for injecting ozone water into the tank.

Concerning claims 9 and 10, Watanabe et al disclose a transport pipe capable of providing a means to retain dialysis waste liquid gas-tightly/in substantial absence of air until it reaches the tank since in is an imperforate pipe.

As to claim 11, Watanabe et al disclose the ozone water ejection nozzle as being constructed to eject ozone water to an outlet of the transport pipe and to the exposed wall surface of the treatment tank since it produces a fog of ozone water that fills upper void space within the tank above the liquid (see lines 63-67 of col. 3).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al in view of Cole et al.

With respect to claim 13, Watanabe et al disclose the concept of providing an additional processes for treating water released by the discharge pipe 20 of the treatment tank 16 but fail to specify the recited organic substance decomposing tank. Cole et al disclose an organic substance decomposing tank 10, an ozone gas supply unit positioned to supply ozone gas to the waste liquid in the treatment tank (see lines

Art Unit: 1724

49-55 of col. 8), and an ultraviolet lamp 62 positioned to irradiate ultraviolet light to the waste liquid in the tank (see FIG. 8). Cole et al teaches that such an apparatus is capable of removing organic residues in the waste water. It would have been obvious to have modified the apparatus of Watanabe et al so as to have included the organic substance decomposing tank as suggested by Cole et al in order to remove organic residues in the waste water.

Concerning claim 14, Cole et al disclose an apparatus capable of producing bubbles on the liquid surface since it includes all of the structure to the extent recited in the instant claim.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al in view of Lapidot.

With respect to claim 15, Watanabe et al disclose an ozone production unit 24 at the front stage of the tank but fail to specify the water cooler. Lapidot discloses the concept of providing a water cooler 11 for cooling waste water prior to contact with ozone and suggests that cooling the water facilitates the use of off-gas from the tank for regeneration of ozone (see lines 11-50 of col. 6). It would have been obvious to have modified the apparatus of Watanabe et al so as to have included a water cooler as suggested by Lapidot in order to facilitate the use of off-gas from the tank for regeneration of ozone.

Concerning claim 16, Watanabe et al disclose the water source as originating from a storage vessel but fails to specify the water as being city water or pure water,

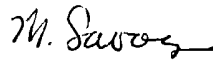
Art Unit: 1724

however, the use of city water or pure water would have been obvious to one skilled in the art in order to prevent clogging of the ozone water nozzle 27.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Matthew O Savage
Primary Examiner
Art Unit 1724

mos
January 5, 2005